

APPENDIX E

DRAFT GENERAL CONFORMITY DETERMINATION FOR THE LONG BEACH LNG IMPORT PROJECT

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Long Beach LNG Import Project Draft General Conformity Determination

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1.0 INTRODUCTION TO THE PROPOSED ACTION

On January 26, 2004, Sound Energy Solutions (SES) filed an application with the Federal Energy Regulatory Commission (Commission or FERC) under section 3 of the Natural Gas Act and Part 153 of the Commission's regulations. SES seeks authorization from the FERC to site, construct, and operate a liquefied natural gas (LNG) receiving terminal and associated facilities in the Port of Long Beach (POLB or Port) in Long Beach, California as a place of entry for the importation of LNG. SES submitted an application to the POLB for a Harbor Development Permit on July 25, 2003, seeking approval for a development project within the Port.

SES' proposal, referred to as the Long Beach LNG Import Project, would involve the construction and operation of LNG terminal facilities consisting of a ship berth and unloading facility, two LNG storage tanks, vaporization and vapor handling systems, a natural gas liquids recovery system, an LNG trailer truck loading facility, 2.3 miles of 36-inch-diameter pipeline, one pig launcher and receiver, a meter station, an odorization system, and various other facility components.

Additional facilities associated with the project include 4.6 miles of 10-inch-diameter pipeline to transport vaporized ethane from the LNG terminal to ConocoPhillips' existing Los Angeles Refinery Carson Plant, a meter station, one pig launcher and receiver, and approximately 0.8 mile of 66 kilovolt electric distribution lines and a new substation to connect the LNG terminal to two of Southern California Edison's existing substation taps.

The proposed LNG terminal and associated facilities are described in detail in section 2.0 of the draft environmental impact statement/environmental impact report (EIS/EIR) for the Long Beach LNG Import Project.

2.0 GENERAL CONFORMITY - REGULATORY BACKGROUND

The U.S. Environmental Protection Agency (EPA) promulgated the General Conformity Rule on November 30, 1993 to implement the conformity provision of Title I, section 176(c)(1) of the federal Clean Air Act (CAA). Section 176(c)(1) requires that the federal government not engage, support, or provide financial assistance for licensing or permitting, or approving any activity not conforming to an approved CAA implementation plan. In the South Coast Air Basin (SCAB), the applicable State Implementation Plan (SIP) is the *1999 Amendment to the 1997 Ozone SIP Revision for the South Coast Air Basin*. The SCAB's SIP has been approved by the EPA for the regulation of air emissions and enforcement of air quality rules to attain the ozone National Ambient Air Quality Standards (NAAQS).

Additionally, the South Coast Air Quality Management District (SCAQMD) adopted the federal General Conformity regulations, as Regulation XIX, Rules 1901, on September 9, 1994.

2.1 GENERAL CONFORMITY REQUIREMENTS

Title I, section 176(c)(1), of the CAA defines conformity as the upholding of "an implementation plan's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving attainment of such standards." Conforming activities or actions should not, through additional air pollutant emissions:

- cause or contribute to new violations of any NAAQS in any area;
- increase the frequency or severity of any existing violation of any NAAQS; or

- delay timely attainment of any NAAQS or interim emission reductions.

The General Conformity Rule establishes conformity in coordination with and as part of the National Environmental Policy Act process. The rule takes into account air pollutant emissions associated with actions that are federally funded, licensed, permitted, or approved, and ensures emissions do not contribute to air quality degradation, thus preventing the achievement of state and federal air quality goals. In short, General Conformity refers to the process of evaluating plans, programs, and projects to determine and demonstrate that they meet the requirements of the CAA and applicable SIP.

2.2 GENERAL CONFORMITY APPLICABILITY

Pursuant to the General Conformity Rule, a federal agency must make a General Conformity Determination for all federal actions in non-attainment or maintenance areas where the total of direct and indirect emissions of a non-attainment pollutant or its precursors exceeds levels established by the regulations.

The Long Beach LNG Import Project area is designated as a severe non-attainment area for the 8-hour NAAQS for ozone. The project area is also currently designated as a serious non-attainment area for carbon monoxide (CO) and particulate matter having an aerodynamic diameter of 10 microns or less (PM₁₀) and a non-attainment area for particulate matter having an aerodynamic diameter of 2.5 microns or less (PM_{2.5}). The project area is in attainment with the NAAQS for all other criteria pollutants. A General Conformity Determination in a severe ozone non-attainment area that is also a serious CO and PM₁₀ non-attainment area, is required for any project that would result in combined direct and indirect emissions of either nitrogen oxides (NO_x) or volatile organic compounds equal to or greater than 25 tons per year (tpy) for the severe 8-hour designation for ozone, CO equal to or greater than 100 tpy, or PM₁₀ equal to or greater than 70 tpy. There is currently no General Conformity applicability threshold listed for PM_{2.5} non-attainment areas; however, as recommended in a March 2005 EPA memorandum regarding the implementation of the New Source Review requirements in PM_{2.5} non-attainment areas, a surrogate threshold of 100 tpy for PM₁₀ moderate non-attainment areas was used in this analysis. A General Conformity Determination is not required for actions where the total of direct and indirect emissions is below these emissions levels and does not represent 10 percent or more of a non-attainment or maintenance area's total emissions of those pollutants.

Emissions authorized through the federal Non-attainment New Source Review permitting process are exempt from being included in the total sum of direct and indirect emissions to evaluate federal General Conformity applicability.

This draft General Conformity Determination has been prepared pursuant to the CAA, section 176(c)(1) to assess whether the emissions that would result from the FERC's action in authorizing the Long Beach LNG Import Project would be in conformity with the SIP.

3.0 ASSESSMENT OF THE PROJECT EMISSIONS

The predicted air emissions for the Long Beach LNG Import Project were prepared using widely accepted methods. Emissions were estimated for both construction and operation of the proposed project. In general, the land- and marine-based construction equipment emissions were estimated by multiplying emission factors for each engine type by the amount of power produced and by operating hours. Mobile source emissions from construction vehicles and truck traffic (operation) were estimated using a combination of the procedures contained in the SCAQMD's California Environmental Quality Act Air Quality Handbook and EPA AP-42 emission factors. Emissions from LNG ships, tug boats, pilot boats,

and escort boats were estimated using emission factors for existing, similar facilities and proposed fuel/energy input to the ships during roundtrip operation in state waters. Because they would not occur simultaneously, a separate General Conformity applicability review of the total estimated project emissions for each pollutant resulting from both construction and operation was performed and is provided in tables 3-1 and 3-2.

TABLE 3-1					
Construction Emission Rates Associated with the Long Beach LNG Import Project ^a					
Emissions Source Category	Emission Rate (tons per year)				
	NO _x	ROC/VOC ^b	PM ₁₀	PM _{2.5} ^c	CO
Marine Dredges	2.4	0.4	---	---	2.0
Welding Machines	14.4	1.6	1.6	1.6	17.2
Electric Generators	4.8	0.4	0.4	0.4	5.6
Materials Trucks/Deliveries	15.2	1.2	0.4	0.4	8.8
Fugitive Dust	---	---	62.8	62.8	---
Construction Equipment (e.g., cranes, front-end loaders)	28.8	2.4	2.0	2.0	13.2
Workers (commuting)	6.4	6.4	0.4	0.4	60.8
Total	72.0	12.4	67.6	67.6	107.6
Conformity Applicability Threshold	25	25	70	100	100
Exceedance of Threshold	Yes	No	No	No	Yes
^a Emission rates are based on information presented in table 4.9.4-2 of the Long Beach LNG Import Project draft EIS/EIR. ^b VOC are identified as ROC by the California Air Resources Board and local air quality agencies. Therefore, the term ROC is used in the text of the Long Beach LNG Import Project draft EIS/EIR to describe VOC emissions. ^c To be conservative, PM _{2.5} emissions have been assumed to be equal to the estimated PM ₁₀ emissions.					

TABLE 3-2					
Operational Emission Rates Associated with the Long Beach LNG Import Project ^a					
Emissions Source Category	Emission Rate (tons per year)				
	NO _x	ROC/VOC ^b	PM ₁₀	PM _{2.5} ^c	CO
Stationary Sources ^d	^e	^e	10.4	10.4	21.4
Fugitive Equipment Leaks	^e	^e	---	---	---
LNG Ships	15.6	0.3	4.5	4.5	0.1
Tugboats/Pilot Boats/Coast Guard Escort Boats	4.7	0.6	0.22	0.22	3.1
Employee and Visitor Light Duty Vehicles (gasoline)	0.7	0.2	0.02	0.02	6.6
Delivery Trucks (diesel)	0.04	<0.01	<0.001	<0.001	0.2
LNG Trailer Trucks	0.9	0.8	0.1	0.1	0.4
Total	21.9	1.7	15.2	15.2	36.8
Conformity Applicability Threshold	25	25	70	100	100
Exceedance of Threshold	No	No	No	No	No
^a Emission rates are based on information presented in table 4.9.5-2 of the Long Beach LNG Import Project draft EIS/EIR. ^b VOC are identified as ROC by the California Air Resources Board and local air quality agencies. Therefore, the term ROC is used in the text of the Long Beach LNG Import Project draft EIS/EIR to describe VOC emissions. ^c To be conservative, PM _{2.5} emissions have been assumed to be equal to the estimated PM ₁₀ emissions. ^d Stationary source emissions include those from terminal vaporization and emergency equipment as well as LNG ship hotelling and non-propulsion shipping activities. ^e Emissions would be authorized through the federal Non-attainment New Source Review permitting process and, therefore, are exempt in accordance with Title 40 CFR Part 51.853(d)(1) from being included in the total sum of direct and indirect emissions to evaluate federal General Conformity applicability.					

Based on an evaluation of the direct and indirect emissions associated with construction of the project, the estimated annual emission rates of NO_x and CO would exceed the 25 and 100 tpy applicability thresholds, respectively. However, based on an evaluation of the direct and indirect emissions associated with operation of the project, none of the estimated annual emission rates would exceed the applicability thresholds. Therefore, a General Conformity Determination is only required for construction of the project.

4.0 GENERAL CONFORMITY DETERMINATION

The California Air Resources Board (CARB) submitted to the EPA an attainment plan in December of 1999 titled *1999 Amendment to the 1997 Ozone SIP Revision for the South Coast Air Basin*. The 1999 Amendment provided revisions to the ozone portion of the 1997 Air Quality Management Plan (AQMP) that was submitted to the EPA as a revision to the SCAB portion of the 1994 California Ozone SIP. This SIP was approved by the EPA in April 2000.

The SCAQMD's Governing Board adopted the 2003 AQMP on August 1, 2003. The SCAQMD's AQMP addresses federal CAA requirements for SIPs as well as California CAA requirements. The SIP component revises the region's demonstration of attainment for both the federal 1-hour ozone standard by 2010 and the federal PM₁₀ standard by 2006. The 2003 AQMP provides a basis for a maintenance plan for CO for the future, and updates the maintenance plan for the federal nitrogen dioxide standard that the SCAB has met since 1992. Upon local, state, and federal approval, the 2003 AQMP will replace the existing 1997/1999 Ozone SIP and 1997 PM₁₀ SIP for the SCAB. Subsequently, the CARB submitted to the EPA a revised attainment plan in January of 2004 titled *Final 2003 State and Federal Strategy (Statewide Strategy) for the California State Implementation Plan*. This supplement identifies the latest emission budgets, control measures, and regulations that will be implemented in the SCAB.

It should also be noted that a SIP demonstrating attainment with the 8-hour standard is being developed and will be adopted by the SCAQMD and CARB and submitted to the EPA for approval by June 15, 2007.

The General Conformity Determination will be based on the 1997/1999 SIP and/or 2003 AQMP currently in place for the SCAB.

4.1 REQUIREMENTS OF THE 1997/1999 SIP AND 2003 AQMP

Emission control measures and regulations that have been included in the 1997/1999 SIP and 2003 AQMP that may potentially apply to the Long Beach LNG Import Project are summarized in table 4-1.

Several of the control measures identified in table 4-1 would indirectly affect the emissions from the proposed Long Beach LNG Import Project by implementing new standards for refineries and engine manufacturers. These include the heavy duty on-road diesel engine, non-road diesel engine, and federal marine engine rules. SES would use construction equipment powered by diesel engines during construction of the facilities subject to these federal programs. Implementation and compliance with these programs would be required by the engine manufacturers, not SES. Therefore, it is assumed that the Long Beach LNG Import Project would be in compliance with these regulations. Also being implemented is the California low emission vehicle and the enhanced inspection and maintenance programs that would only apply to light- and medium-duty vehicles.

TABLE 4-1		
Control Measures in the SCAB Non-attainment Area Associated with the Long Beach LNG Import Project		
Name of Control Measure	Type	Applicability to the Long Beach LNG Import Project
Low Emission Vehicle II Program	State Rule	Potentially applicable to project-related vehicles
Medium Duty Vehicles	State Rule	Potentially applicable to project-related vehicles
Moyer Program (Clean Engine Incentives)	State Rule	Potentially applicable to project-related vehicles
California Heavy Duty Diesel Vehicle Standards	State Rule	Potentially applicable to project-related vehicles
California Heavy Duty Gasoline Vehicle Standards	State Rule	Potentially applicable to project-related vehicles
Federal Heavy Duty Diesel Vehicle Standards	Federal Rule	Potentially applicable to project-related vehicles
California Heavy Duty Off-road Diesel Engine Standards	State Rule	Potentially applicable to project-related construction vehicle engines
National Heavy Duty Off-road Diesel Engine Standards	Federal Rule	Potentially applicable to project-related construction vehicle engines
California Large Off-road Gas/LPG Engine Standards	State Rule	Potentially applicable to project-related construction vehicle engines
National Large Off-road Gas/LPG Engine Standards	Federal Rule	Potentially applicable to project-related construction vehicle engines
Federal Marine Vessel Standards	Federal Rule	Potentially applicable to tugboat, pilot boat, and escort boat engines
Clean Fuel Measures	State Rule	Potentially applicable to project-related vehicles
California Medium/Heavy Duty Gasoline Vehicle Standards	State Rule	Potentially applicable to project-related vehicles
Small Off-road Engine Standards	State Rule	Potentially applicable to project-related vehicles
Enhanced I/M Smog Check for Passenger and Cargo Vehicles	State Rule	Potentially applicable to project-related vehicles
California Cleaner Engines and Fuels for Existing Harbor Craft Fleet	State Rule	Potentially applicable to project-related tugboats, pilot boats, and escort boats
Reductions to Land Based Port Emissions – Alternative Fuels, Cleaner Engines, etc.	State Rule	Potentially applicable to project-related vehicles
Reductions from Fugitive Dust Sources	State Rule	Potentially applicable to construction activities
Regional Clean Air Incentives Market	State Rule	NO _x and SO ₂ Emissions Trading Program applicable to the LNG terminal facility emission sources

The SCAQMD also implemented emission requirements for stationary sources including emissions trading programs and reasonably available control technology and/or best available control technology requirements. The stationary sources at the proposed LNG terminal would require an air permit from the SCAQMD that would ensure compliance with these requirements, if applicable. As such, the emissions generated by the Long Beach LNG Import Project would comply with the SIP provisions.

Additional control and mitigation measures that would be implemented during construction and operation of the project are provided in sections 4.9.4 and 4.9.5 of the Long Beach LNG Import Project draft EIS/EIR.

The only remaining criteria that must be met to demonstrate conformity with the SIP is to either demonstrate that: 1) project construction emissions of NO_x and CO are specifically identified and accounted for in the SIP's attainment demonstration; 2) project construction emissions would be completely offset through a revision in the SIP or similar enforceable measure so that there is no net increase in emissions in the SCAB; or 3) project construction emissions of CO do not cause or contribute to any new violation of any standard or increase the frequency or severity of any existing violation of any standard in the area through an area-wide and/or local air quality modeling analysis.

4.2 EMISSIONS BUDGETS/ATTAINMENT DEMONSTRATION FOR THE SCAB

The projected emissions identified in the 1997/1999 SIP and 2003 AQMP are the emission budgets for the SCAB as it plans to meet the 1-hour ozone and CO standards. The project's estimated emissions were not specifically identified or accounted for in the SIP or the 2003 AQMP and the SCAQMD has not committed to revising the budgets to accommodate them. However, the emissions budgets for the SIP being prepared to demonstrate attainment with the 8-hour standard for ozone are under development. Should agreement of certain commitments under Title 40 Code of Federal Regulations Part 93.158(a)(5)(i)(B) be used to demonstrate conformity with the 8-hour standard, the commitments would be provided to the FERC and included in the final General Conformity Determination. SES is currently discussing this option with the SCAQMD.

4.3 PROJECT EMISSIONS OFFSETTING

SES is evaluating the possibility of fully offsetting the project construction emissions through the acquisition of emission credits or an equally enforceable measure that would result in emissions reductions equal to or greater than the project emissions so that there is no net increase. If SES chooses to demonstrate conformity through offsetting, SES would be required to provide the FERC with documentation necessary to support the emissions reductions approved by the SCAQMD. This information would be included in the FERC's final General Conformity Determination.

4.4 AREA-WIDE AND/OR LOCAL AIR QUALITY MODELING ANALYSIS

For CO, conformity can be demonstrated through the use of an area-wide and/or local air quality modeling analysis that shows that project emissions would not cause or contribute to any new violation of any standard or increase the frequency or severity of any existing violation of any standard in any area.

SES is evaluating the possibility of conducting an air quality modeling analysis to demonstrate conformity of project construction emissions for CO. If SES chooses to demonstrate conformity through a modeling analysis, SES would be required to provide detailed information on the analysis documenting the inputs, methodology, and results to the FERC. This information would be included in the FERC's final General Conformity Determination.

5.0 FINDING OF CONFORMITY

Documentation supporting conformity with the applicable SIP and AQMP has not been filed with the FERC. Until this information is provided by SES, the Long Beach LNG Import Project is deemed to not conform with the applicable SIP and AQMP. SES must complete a full analysis and identify any mitigation requirements necessary for a finding of conformity before a determination of conformity can be made. The FERC staff has recommended in the draft EIS/EIR for the Long Beach LNG Import Project that SES submit documentation supporting conformity with the applicable SIP and AQMP to the FERC for analysis in the final EIS/EIR. Upon receipt of the required information from SES, the FERC will complete the analysis and issue a final General Conformity Determination for the Long Beach LNG Import Project.